

The following Listing of Claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Previously Presented) A joint comprising:
a push rod having a protruding portion; and
a main body having
an upper end and a lower end spaced in a push rod longitudinal direction, said protruding portion of said push rod protruding along said push rod longitudinal direction from said upper end of said main body,
a push rod storage space being formed in said main body, said push rod storage space housing said push rod,
a communication path being formed in said main body at said lower end,
a seal structure forming part being formed on an outer circumference of said main body at said upper end, and
a male thread part being configured to thread together with a female thread part of a nut member along the push rod longitudinal direction,
said seal structure forming part surrounding said push rod storage space and being configured to form a seal structure by directly contacting a first tapered part of the nut member when said female thread part and said male thread part are threaded together,
a portion of said protruding portion being configured to contact a part of said nut member when installed, said push rod being movable toward said lower end of said main body along the push rod longitudinal direction to communicate with a fluid passageway of said nut member and said communication path.
2. (Previously Presented) The joint as recited in claim 1, wherein
said seal structure forming part is a second tapered part inclined toward a large diameter of said main body and toward said lower end in the push rod longitudinal direction.

3. (Previously Presented) The joint as recited in claim 2, wherein an angle formed by an intersection of an inclination direction of said second tapered part with the push rod longitudinal direction is less than or equal to an angle formed by an inclination direction of the first tapered part of the nut member with the push rod longitudinal direction in a state in which said female thread part and said male thread part are threaded together.

4. (Previously Presented) The joint as recited in claim 2, wherein said second tapered part is provided with a taper projection part that projects toward the outer circumference, and said taper projection part is configured to form a seal structure by deforming when contacting said first tapered part of the nut member.

5. (Previously Presented) The joint as recited in claim 1, wherein said seal structure forming part includes a convex spherical surface.

6. (Previously Presented) The joint as recited in claim 1, wherein said seal structure forming part includes a sealing member as a separate body, and said sealing member is configured to form a seal structure by deforming when contacting said first tapered part.

7. (Previously Presented) The joint as recited in claim 6, wherein said seal structure forming part further includes a groove that supports said sealing member.

8. (Previously Presented) The joint as recited in claim 1, wherein said push rod includes a projection part at said protruding portion that projects toward the outer circumference, said projection part is configured to contact said first tapered part of the nut member.

9. (Previously Presented) The joint as recited in claim 8, wherein
said projection part includes a third tapered part inclined toward the outer
circumference and toward said lower end in the push rod longitudinal direction, and
said third tapered part of said push rod is configured to contact said first tapered part of
the nut member.

10. (Previously Presented) The joint as recited in claim 1, wherein
said push rod includes a fourth tapered part at an end part on said protruding portion
that is inclined toward the outer circumference and toward said lower end in the push rod
longitudinal direction, and
said fourth tapered part is configured to contact said first tapered part of the nut
member.

11. (Previously Presented) A joint comprising:
a push rod having a protruding portion;
a main body having
 an upper end and a lower end spaced in a push rod longitudinal direction, said
 protruding portion of said push rod protruding along said push rod
 longitudinal direction from said upper end of said main body,
a push rod storage space being formed in said main body, said push rod
 storage space housing said push rod,
a communication path being formed in said main body at said lower end,
a seal structure forming part being formed on an outer circumference of said
 main body at said upper end, and
a male thread part,
said seal structure forming part surrounding said push rod storage space and
 being configured to form a seal structure by directly contacting a first
 tapered part of a piping; and
a nut member including
 a female thread part selectively threaded with said male thread part along the
 push rod longitudinal direction,

a second tapered part inclined toward an outer circumferential side and toward
a female thread part side, and

an opening being formed in said nut member to insert the piping,

said seal structure forming part and said second tapered part being configured to sandwich and to press a portion of said first tapered part of the piping in a state in which said female thread part and said male thread part are screwed together and the piping is inserted in said opening of said nut member so that said first tapered part directly contacts said second tapered part, and said protruding portion directly contacts another portion of the first tapered part,

said push rod being movable toward said lower end of said main body along the push rod longitudinal direction to communicate with a fluid passageway and said communication path.

12. (Previously Presented) The joint as recited in claim 11, wherein
said seal structure forming part is a third tapered part inclined toward a large diameter of said main body and toward said lower end in the push rod longitudinal direction.

13. (Previously Presented) The joint as recited in claim 12, wherein
an angle formed by an intersection of an inclination direction of said third tapered part with the push rod longitudinal direction is less than or equal to an angle formed by an inclination direction of the second tapered part with the push rod longitudinal direction in a state in which said female thread part and said male thread part are threaded together.

14. (Previously Presented) The joint as recited in claim 12, wherein
said third tapered part is provided with a taper projection part that projects toward the outer circumference, and said taper projection part is configured to form a seal structure by contacting said first tapered part of the piping.

15. (Previously Presented) The joint as recited in claim 11, wherein
said seal structure forming part includes a convex spherical surface.

16. (Previously Presented) The joint as recited in claim 11, wherein said seal structure forming part includes a sealing member as a separate body, and said sealing member is configured to form a seal structure by deforming when contacting said first tapered part.

17. (Previously Presented) The joint as recited in claim 16, wherein said seal structure forming part further includes a groove for supporting said sealing member.

18. (Previously Presented) The joint as recited in claim 11, wherein said push rod includes a projection part that projects toward the outer circumference at said protruding portion, said projection part is configured to contact said first tapered part of the piping.

19. (Previously Presented) The joint as recited in claim 18, wherein said projection part includes an fourth tapered part inclined toward the outer circumference and toward said lower end in the push rod longitudinal direction, and said fourth tapered part of said push rod is configured to contact said first tapered part of the piping.

20. (Previously Presented) The joint as recited in claim 11, wherein said push rod includes a fifth tapered part at an end part on said protruding portion that is inclined toward the outer circumference and toward said lower end in the push rod longitudinal direction, and said fifth tapered part is configured to contact said first tapered part of the piping.